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generally lengthwise between and connecting said 1st and 3rd layers and supporting said 3rd layer in a position intermediate said 1st and said 2nd layers, thereby defining a continuous 1st air space between said 2nd and 3rd layer and a discontinuous 2nd air space interrupted by said plurality of link threads between said 1st and 3rd layers, said air circulation means communicating with said 1st and 2nd air spaces.

REMARKS

Claims 18-31 are currently pending in this case. By the above amendments all these claims have been amended as shown above, with the redline version of same attached at the end of this amendment.

In the outstanding Office Action Claims 18-31 have been rejected under 35 U.S.C. § 112, 2nd paragraph, for indefiniteness in connection with the terms "garment" in the preamble of certain claims and "system" in other claims. This issue has been clarified and resolved by amendments to the relevant claims, as explained below.

The earlier restriction requirement set forth Group I claims drawn to a composite textile, and Group II claims drawn to a garment or system for protecting a body from adverse environmental conditions. Group II was elected. The term "garment" in the Group II claims was intended to mean an article that encompassed at least a part of the body, such as a hood, jacket, pants, etc. or an article that encompassed the entire body, such as a protective suit. The term "system" was intended to mean a protective fabric article, not limited to garments and suits, but including sleeping bags, etc. The claims as now amended are clearly drawn to a fabric article that encompasses part or all of the body for protection against adverse environmental heat conditions; in certain claims the article is a garment.

In the independent Claims 18, 24 and 31 the preambles now recite “article for encompassing and protecting at least a portion of a body,” and the dependent claims refer back to the “article” as the antecedent term. These amendments are believed to overcome the Examiner’s objection to “garment” as being indefinite for encompassing anything that would cover the body. The present claims are directed to a fabric article that encompasses and protects part or all of the body from adverse environmental heat conditions. This is believed to be specific and succinct and accordingly it is believed that rejection under 35 U.S.C. § 112, 2nd paragraph for indefiniteness has been overcome.

The sole remaining issue in the outstanding Office Action is the rejection of Claims 18-31 under 35 U.S.C. § 103, as being obvious over Klein (U.S. Patent No. 2,657,396) in view of Anyou et al. (U.S. Patent No. 6,151,928).

Applicant believes that the Anyou et al. patent is an improper reference, because its effective date is later than Applicant’s effective priority date. More specifically, Anyou et al. was filed on April 10, 1998, with a priority date, if applicable, of February 12, 1997, whereas, Applicant’s effective priority date is February 6, 1997.

In view of the above, it is respectfully requested that the Anyou et al. reference be withdrawn. Assuming such withdrawal is made, then Applicant respectfully submits that the rejection under 35 U.S.C. § 103 based in part on Anyou et al. must also be withdrawn.

Notwithstanding Applicant’s position that Anyou et al. is an improper reference, it is submitted that Anyou et al., even if it were applicable, does not provide a disclosure appropriate for combination with the Klein reference to render obvious any of the pending claims, as will be explained below.

The rejection under 35 U.S.C. § 103(a) acknowledges that Klein “is silent about stating the stitching is link threads.” These link threads are a significant feature of the present invention, and the absence of same in Klein leads to the conclusion that Klein alone cannot anticipate the present claims under 35 U.S.C. 102, and furthermore, Klein alone cannot render these claims obvious under 35 U.S.C. 103.

Applicant’s arguments in its responsive amendment previously filed on or about June 25, 2003 for distinguishing the present invention over Klein, are hereby reiterated and incorporated herein by reference.

More particularly, Klein's teaching does not concern a three-dimensional material in the sense of present invention nor suggest a material having a spacer layer comprised of an hydrophilic layer such as layer (7), which may be discontinuous. Furthermore Klein describes a protective garment (10) which differs from the claimed system (a) in that external layer (12) of Klein is impervious to air (see Col. 4, lines 14-15) and (b) by the absence in Klein of the collector zone and of discontinuous stitching in the diffusion zone for channeling the air flow, as is taught in the present application.

Air circulation is mandatory to combat hyperthermy of a person. Air circulation that may be carried out either by natural convection or by forced convection, introduces fresh air into the system whereby water saturation of the micro-climate is avoided. Liquid sweat evaporation is only made possible if there exists a gradient of water-vapor pressure between the skin (100% humidity) and the microclimate taking place inside the garment. It is thus very important for the three dimensional material to be provided with several openings, as disclosed and claimed in the present invention. As

taught in one preferred embodiment of the present invention, openings referenced 8 are provided, which are not at all suggested in any cited documents.

The present invention is further distinguished over cited prior art in that the fabric of the present claims is manufactured in a single operation of weaving or knitting contrary to the prior art material in which different cloths/layers/plies (in Klein, for example to cite one) are fabricated separately to be assembled later. Moreover, the link threads (5) of the present application extend generally perpendicularly to layers (1) and (7), and display special characteristics notably of bending modulus and density (beginning on page 3, line 23 of the specification) thus maintaining a constant space between layers (1) and (7) on the whole material surface and allowing air circulation throughout of the new material. Finally, the linking threads (5) not only provide strength against compression of the layers of the claimed material but allow absorption of liquid sweat, enhancing the effectiveness of the ventilation (as stated on page 3, lines 23-34).

CONCLUSION

In view of the above, it is respectfully submitted that Claims 18-31 patentably distinguish over the Examiner's cited references. As the Applicant believes that the Application overcomes or traverses each of the Examiner's objections, early allowance and issuance is, accordingly, respectfully solicited.

PETITION FOR THREE MONTH EXTENSION OF TIME

Applicant hereby petitions for a three-month extension of time extending the period for a response to June 19, 2003. Enclosed is a check for \$465.00 to cover the two-

month extension of time fee for a small entity. If any other extensions of time are required to preserve the pendency of this Application, such extension is hereby requested.

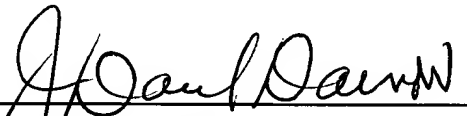
CHARGE DEPOSIT ACCOUNT

Please charge any outstanding amount or credit any overpayment to Deposit Account of the undersigned attorneys, Account No. 01-1785.

Respectfully submitted,

AMSTER, ROTHSTEIN & EBENSTEIN
Attorneys for Applicant
90 Park Avenue
New York, New York 10016
(212) 697-5995

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By: 
J. David Dainow
Registration No.: 22,959

REDLINED VERSION OF THE AMENDED CLAIMS

18. (Amended) A [garment for protecting a] textile fabric article for enclosing and protecting at least a portion of a human body from adverse environmental heat conditions, said [garment] textile fabric article operable with air circulation means[, said garment] and constructed from fabric comprising:

a 1st layer formed of hydrophobic woven material,

a 2nd layer formed of hydrophilic woven material situated generally parallel to and spaced from said 1st layer, with an intermediate air space defined between said 1st and 2nd layers, and

a plurality of link threads spaced apart from each other, each of said link threads extending generally transverse of said 1st and 2nd layers and extending generally lengthwise between and connecting and 1st and 2nd layers, said air circulation means communicating with said intermediate air space.

19. (Amended) The [system] textile fabric article of claim 18, wherein [the system] said textile fabric article is selected from the group consisting of a garment, a seat covering, a bed covering and a sleeping bag.

20. (Amended) The [system] textile fabric article of claim 18, wherein [the] said circulating means includes an entrance coupling for receiving air to be circulated through [the system] said textile fabric article and an exit coupling to permit air to be expelled from [the system] said textile fabric article.

21. (Amended) The [system] textile fabric article of claim 20, further comprising a diffusion zone located intermediate said entrance coupling and said exit coupling for distributing the flow of air to be circulated through [the system] said textile fabric article.

22. (Amended) The [system] textile fabric article of claim 21, wherein said diffusion zone has discontinuous stitching enabling air to diffuse throughout [the entire system] said textile fabric article.

23. (Amended) The [system] textile fabric article of claim 20, further comprising a collector zone located intermediate said entrance coupling and said exit coupling for collecting the flow of air circulated through [the system] said textile fabric article.

24. (Amended) A [garment for protecting a] textile fabric article for enclosing and protecting at least a portion of a human body from adverse environmental heat conditions, said [garment] textile fabric article operable with air circulation means[, said garment] and constructed from fabric comprising:

a 1st layer formed of hydrophobic woven material,

a 2nd layer formed of hydrophilic woven material situated generally parallel to and spaced from said 1st layer,

a 3rd layer formed of hydrophilic woven material located between and spaced from both said 1st and 2nd layers;; and

a plurality of link threads spaced apart from each other, each of said link threads extending generally transverse of said 1st and 3rd layers and extending generally lengthwise between and connecting said 1st and 3rd layers and supporting said 3rd layer in a position intermediate said 1st and said 2nd layers, thereby defining a continuous 1st

air space between said 2nd and 3rd layer and a discontinuous 2nd air space interrupted by said plurality of link threads between said 1st and 3rd layers, said air circulation means communicating with said 1st and 2nd air spaces.

25. (Amended) The [system] textile fabric article of claim 24, wherein said 2nd layer of hydrophilic woven material is [not continuous] discontinuous, allowing air to diffuse therethrough.

26. (Amended) The [system] textile fabric article of claim 25, wherein [the system] said textile fabric article is selected from the group consisting of a garment, a seat covering, a bed covering and a sleeping bag.

27. (Amended) The [system] textile fabric article of claim 25, wherein the circulating means includes an entrance coupling for receiving air to be circulated through the system and an exit coupling to permit air to be expelled from [the system] said textile fabric article.

28. (Amended) The [system] textile fabric article of claim 27, further comprising a diffusion zone located intermediate said entrance coupling and said exit coupling for distributing the flow of air to be circulated through [the system] said textile fabric article.

29. (Amended) The [system] textile fabric article of claim 28, wherein said diffusion zone has discontinuous stitching enabling air to diffuse throughout [the entire system] said entire textile fabric article.

30. (Amended) The [system] textile fabric article of claim 29 further comprising a collector zone located intermediate said entrance coupling and said exit coupling for collecting the flow of air circulated through [the system] said textile fabric article.

31. (Amended) A [system for protecting a] textile fabric article for enclosing and protecting at least a portion of a human body from adverse environmental heat conditions, [comprising a garment for encompassing a portion of a body and] said article operable with an air circulation means[, said garment] and constructed from fabric comprising:

a 1st layer formed of hydrophobic woven material,

a 2nd layer formed of hydrophilic woven material situated generally parallel to and spaced from said 1st layer,

a 3rd layer formed of hydrophilic woven material located between and spaced from both said 1st and 2nd layers;; and

a plurality of link threads spaced apart from each other, each of said link threads extending generally transverse of said 1st and 3rd layers and extending generally lengthwise between and connecting said 1st and 3rd layers and supporting said 3rd layer in a position intermediate said 1st and said 2nd layers, thereby defining a continuous 1st air space between said 2nd and 3rd layer and a discontinuous 2nd air space interrupted by said plurality of link threads between said 1st and 3rd layers, said air circulation means communicating with said 1st and 2nd air spaces.